



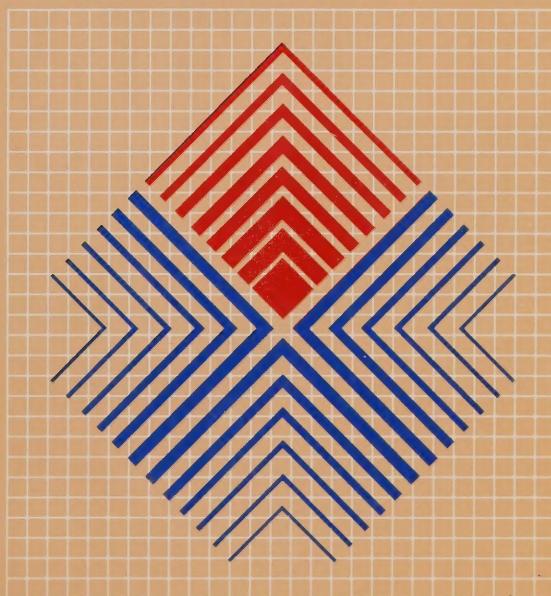
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Training in Industry: A Survey of Employer- Sponsored Programs in Ontario





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TRAINING IN INDUSTRY:
A SURVEY OF EMPLOYER-SPONSORED PROGRAMS IN ONTARIO



Ontario Manpower Commission

April 1986

Ontario Manpower Commission
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FOREWORD

There is a long-standing recognition that employers make an important contribution to maintaining a skilled workforce for the economy both through their own initiatives and through participation in co-operative training programs with government. However, as noted by the Ontario Manpower Commission in a previous study titled "Industrial Training for High-Level Skills", there is little information available on training programs sponsored by employers, on the nature of the programs, or on the extent of employee participation in them.

In order to shed light on this important subject, the Ontario Manpower Commission has conducted a study on the extent and nature of training in industry. This study, which has been submitted to the Minister of Skills Development, devotes particular attention to formal, employer-sponsored programs that are designed for the training and development of skills in specific occupations.

More than 4,200 employers participated in this survey. We are most grateful for the time and effort they invested in helping to develop this profile of training activities.

It is hoped that this study will fill some of the critical information gaps and provide a basis for a better understanding of industry-sponsored training activities.

Benson A. Wilson
Chairman
Ontario Manpower Commission

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HIGHLIGHTS

The Ontario Manpower Commission recently surveyed a large sample of firms across the province to learn about their involvement in employer-sponsored training.

This investigation was more than a fact-finding exercise. In today's environment of intense international competition and rapid technological change, it is critical for Ontario to maintain a highly trained workforce. Although additions to the supply of skilled workers come from a variety of channels, including Ontario's community colleges and universities, immigration, and interprovincial migration, employers can also play a vital role by providing both informal on-the-job training and formal training programs.

Although government-sponsored training programs have inspired much research, very little is known about employer-sponsored training, even the formal programs that are relatively accessible to statistical analysis. Conventional wisdom on the subject exists, of course. It holds that employers will invest in formal training programs if they believe doing so will provide a net economic return (in other words, if they think training is more cost effective than alternatives, such as hiring from the external labour market, promoting from within the organization, using overtime, substituting technology, or even redesigning jobs). Further, the expectation is that economies of scale will lead large employers to train more than small ones and that the types of training provided employees will reflect the investments already made in firm-specific processes and techniques. Through the Commission's survey, it is possible to assess whether these expectations reflect reality and to add to the information available on formal, employer-sponsored training programs.

For the survey, the Commission sent a questionnaire to 9,050 Ontario establishments, including governments at all levels. The 4,200 respondents represent all sizes of firms and all industry groups found in the province. For the most part, the survey related to activity in 1984, but there is little reason to believe the picture has changed significantly since then.

In examining the survey results, it is important to distinguish between two measures of employers' activity in providing formal training: the extent to which employers sponsor programs and the extent to which employees actually participate in these programs. The first reveals nothing about the second, and the second is the more important of the two.

It is also important to realize that the survey responses for both measures may be somewhat inflated simply because employers who offer formal training programs were more likely to respond than those who do not.

Main Findings

- o During a calendar year — 1984 for this study — about 13 per cent of all full-time permanent employees participate in general skill training programs and about 11 per cent in qualifying or upgrading training programs. (These figures may reflect some double counting since some employees could be enrolled in both types of programs or even in several courses of one type during a year.) In 1984, only 2.7 per cent of all employees received formal qualifying or upgrading training that lasted two weeks or more; most of these were enrolled in programs of 13 weeks or less.
- o Employees in the "white-collar" occupations - managerial, professional and technical, clerical, and sales - have a higher participation rate in general skill training programs than do "blue-collar workers". The situation is reversed for qualifying or upgrading training, particularly for workers in service and primary occupations.
- o Approximately 27 per cent of all Ontario establishments sponsor formal training programs. The incidence increases with the size of establishment, from a low of 24 per cent for the smallest establishments (those with fewer than 20 employees) to a high of 88 per cent for the largest (those with 200 or more employees).

- o The extent to which employers offer formal training programs varies substantially across industries. The incidence ranges from 9 per cent in primary industries to 51 per cent in the manufacturing of durable goods and 60 per cent in public administration.
- o Some 80 per cent of all establishments do not sponsor qualifying or upgrading programs. Of these, 31 per cent report their main reason for not doing so is that informal training meets their needs. Another 31 per cent indicate that they lack the capacity to mount such programs. (This reason was especially significant for small establishments.) Other main reasons include a preference for recruiting trained workers, the use of few skilled jobs, the cost of providing formal programs, and the risk of losing employees after training them.
- o Among the establishments that offer training, 26 per cent sponsor only general skill training programs, 37 per cent sponsor only qualifying or upgrading programs, and the remaining 37 per cent sponsor both types. About one-third sponsor some qualifying or upgrading programs that last longer than two weeks.
- o About 10 per cent of the surveyed establishments had recently experienced changes in staffing arrangements attributable to technological change, and nearly all of them — more than 90 per cent — engaged in training employees to acquire the skills needed to work with new equipment or processes. Informal training is usually more extensive than formal training to accommodate such changes.
- o The vast majority of training establishments were not aware of the major training-assistance programs of the federal and Ontario governments. Of establishments with formal training programs, only about 12 per cent participated in a government-assisted program during 1984. Participation ranged from a low of about 10 per cent for the small establishments to a high of

33 per cent for the large ones. Across industries, the highest rate of participation was in mining (35 per cent), followed by durable goods manufacturing (34 per cent) and nondurable goods manufacturing (21 per cent).

- o The government training-assistance programs were rated as helpful by a majority of the participating establishments. More than 80 per cent indicated financial assistance as the main reason for this rating, and more than 80 per cent plan to use the programs again.
- o Many training establishments that did not participate in a government training-assistance program indicated that no program was suitable for their needs. Other frequently cited reasons were ineligibility and an overabundance of administrative requirements.
- o Accounting for training expenditures is weak in industry. Only about one-fourth of the training establishments had separate training budgets. There is also a lack of uniformity in accounting for the various costs associated with training. For example, among the establishments with training budgets, 70 per cent include tuition, travel, and accommodation for their trainees, but only 46 per cent include the wages and salaries of employees in training.

Employers and Training

These findings suggest that employers view sponsorship of formal training programs as only one of a number of alternatives for meeting their needs for skilled workers. In reviewing the training option, many employers seem, however, to operate with less than complete information. The number of establishments that sponsor formal training programs but do not have separate training budgets and the marked variation in accounting for training costs may signal a lack of expertise that hinders employers not only in identifying the true costs of training but also in determining the benefits of sponsoring it.

The survey results also support the expectation that the sponsorship of formal training programs and the degree of employee participation in them vary substantially by size of establishment and by industry. The ability of large establishments to develop programs internally and to benefit from economies of scale is clearly one important factor here. Another is the extent to which alternatives to sponsoring formal training are realistically available to a given firm in the face of such factors as the introduction of new technology that creates a need to train, the types of skills required, and the nature of the industry.

INTRODUCTION TO THE STUDY

In "Industrial Training for High-Level Skills", a paper released in 1983, the Ontario Manpower Commission identified a fundamental concern: the lack of current information on training programs sponsored by employers, particularly programs that do not receive government assistance.* This lack of information has hindered reviews of training policies and strategies in Ontario as well as consideration of private employers' and governments' relative roles in and responsibilities for developing and maintaining a skilled labour force.

In response to this information gap, the Commission undertook a survey of employer-sponsored training activities in 1984 to identify the following:**

- o What is the incidence of formal, employer-sponsored training programs?
- o What types of training programs do employers provide? And for which occupations?
- o What is the incidence of employee participation in such programs?
- o What factors affect employers' decisions to sponsor (or not sponsor) formal training programs?

* There have been few broadly based studies on industry training in Ontario or Canada. Among the more comprehensive are: "Human Resources Survey", Economic Council of Canada, 1980; the special Labour Force Survey, "Employer Sponsored Training Programs", Statistics Canada 1975; and "Industry Sponsored Training Programmes in Ontario, August, 1968-July, 1969", Ontario Ministry of Labour. Other studies, though more recent, have been of limited scope, focussing on particular industries, occupations, or programs.

** This survey in Ontario was undertaken by the Ontario Manpower Commission in co-operation with Employment and Immigration Canada because of the latter's interest in undertaking the same survey nationally.

Industry provides a large part of its training through informal, on-the-job instruction. Surveys are most accurate, however, when the focus is on structured, well-defined activities. Consequently, the Commission concentrated on formal programs designed for developing occupational skills.

For the purposes of the survey, a formal program was defined as one that requires an instructor and has an identifiable structure designed to develop a worker's skills on the job, in a classroom or specifically equipped training site (at a company location or a postsecondary institution), or through a combination of on-the-job experience and classroom instruction. The program could be conducted during or after work hours. Safety and orientation training was excluded.

Information was requested on two basic categories of formal training programs:

- o General skill training programs, defined to cover a broad range of programs and courses, including the teaching of writing, presentation, and management skills, introduction to the use of microcomputers, and so on.
- o Qualifying or upgrading training programs, defined to include programs aimed at providing an employee with specific skills to meet the requirements of a job or at upgrading the skills an employee uses in a specific job or occupation.

Determining the level of employee participation in formal training programs poses some measurement problems. During the course of a year - 1984 for this study - an individual may participate in more than one program. During the normal course of events in an industrial setting, individuals or groups of employees may be promoted, leave, or be hired; each new situation may create new training requirements. For the survey, respondents were asked to report the total number of full-time permanent employees who participated in formal training programs during the 1984 calendar year -- a procedure that may lead to some overstatement of the estimates of employee participation.

A substantial part of the survey design was undertaken by the Commission's Secretariat, but implementation of the survey was contracted out to Canadian Facts. Questionnaires were mailed to a total sample of 9,050 establishments, representing all employment sizes and industry groups; 4,200 responses (46 per cent of the sample) were received in a condition acceptable for analysis. Information on the characteristics of the survey population can be found in Appendix A. The survey methodology is described in Appendix B, and the questionnaire is reproduced in Appendix C.

Two caveats seem appropriate. First, the estimates produced from the survey are measures of the incidence of employer-sponsored training programs; they should not be converted for use as measures of the absolute levels of employers' training activities. Second, some judgement has to be exercised in interpreting the survey results. Although the questionnaire included extensive definitions, the information reported for a number of questions was subject to respondents' perceptions and to their ability to report on training activities for their establishments.

The rest of this report details the survey findings, organized in two parts. The first presents an overview of formal, employer-sponsored training programs in Ontario, and the next describes a number of their characteristics.

AN OVERVIEW OF FORMAL, EMPLOYER-SPONSORED TRAINING PROGRAMS IN ONTARIO

Among the important results of the survey are estimates on the incidence of general skill training programs and qualifying or upgrading training programs sponsored by Ontario employers, on the extent of employees' participation, and on employers' reasons for not providing qualifying or upgrading programs. Taken together, these data give an overview of formal, employer-sponsored training in the province.

The Incidence of Formal Training Programs

During 1984, 27 per cent of all Ontario establishments sponsored at least one formal training program for either general skills or for qualifying or upgrading purposes. This overall average is heavily affected by two facts: 1) the majority of establishments in Ontario are small (fewer than 20 employees); and 2) small establishments are less likely than larger ones to provide formal training programs for their employees. As shown in Table 1, only 24 per cent of the small establishments had such programs, compared to 51 per cent for medium-size establishments (20 to 199 employees) and almost 88 per cent of large ones (200 or more employees). This finding is not unexpected when one realizes that larger firms should be able to take advantage of economies of scale, achieving unit costs for training that are lower than those of smaller firms; the larger establishments, therefore, have a greater incentive to develop training capacity.

Across major industry groups, the incidence of formal training programs ranges from 9 per cent for primary industries to approximately 44 per cent for the manufacturing sector and to almost 60 per cent for public administration. The incidence for all other major industry groups is between 20 and 30 per cent. Some subgroups have marked variations. For example, in the primary industry group, the mining sector has an incidence of 20 per cent. Within the manufacturing sector, the durable and nondurable goods sectors average 51 and 37 per cent respectively, a fairly significant difference.

TABLE 1

Incidence of Formal Training Programs and Workforce Coverage In Ontario Industries, 1984

Establishment Characteristics	Percentage Of Establishments			Percentage Of Total Workforce in Establishments	
	With Formal Training Programs	Without Formal Training Programs	With Formal General Skill Training Programs*	With Formal Qualifying or Upgrading Training Programs*	With Formal Training Programs
<u>Size (number of employees)</u>					
Fewer than 20	23.9%	76.1%	14.1%	17.2%	36.3%
20 - 199	51.1	48.9	37.9	41.4	54.0
200 or more	87.8	12.2	79.3	78.8	9.4
<u>Industry Group</u>					
Primary	9.1%	90.9%	6.8%	6.2%	66.6%
Mining	20.9	79.1	14.7	17.4	91.9
Construction	20.8	79.2	11.2	13.8	32.3
Manufacturing	43.9	56.1	31.3	32.2	73.5
Durable Goods	51.4	48.6	32.7	44.1	79.0
Non-Durable Goods	37.0	63.0	30.0	21.2	65.7
Transportation, Communications, and Utilities	29.2	70.8	22.7	18.0	91.1
Trade	27.4	72.6	16.3	19.7	55.6
Services	27.2	72.8	16.6	21.7	61.7
Finance and Business Services	26.9	73.1	19.6	18.0	72.8
Health and Education	31.4	68.6	22.3	25.3	50.6
Other Services	26.2	73.8	11.8	24.0	44.0
Public Administration	59.8	40.2	40.1	45.6	92.8
All Industries	27.0%	73.0%	17.0%	20.1%	67.9%

* One establishment may provide both types of formal training programs.

Generally, training patterns can be expected to vary among industries because of differences in competition, technological change, location, expansion or contraction of markets, and occupational composition. These factors are difficult to detect, however, for industry groups defined as broadly as those in this study, where each represents organizations that vary considerably in size, products, and occupations. Training patterns are also likely to be affected by many other factors, including the skill levels required for production, shortage or surplus (and its nature) in the relevant labour markets, training costs and the availability and extent of economies of scale in training, the risk of losing newly trained workers, the history of turnover of people with a particular skill, and the existence or lack of an established training program in the organization.

As for program categories, Table 1 shows 17 per cent of Ontario establishments providing general skill programs and 20 per cent qualifying or upgrading programs. For each program category, the general pattern of incidence by size and industry is similar to that for all formal training programs. A number of employers provide training in both categories.

Workforce Coverage

Workforce coverage was another of the survey's areas of enquiry. About 68 per cent of the estimated number of full-time workers are employed by establishments that sponsor formal training programs. The balance of workers — about one-third of Ontario's employed workforce — are in establishments that do not offer any formal training programs to their employees (see Table 1). This pattern is not unexpected since larger establishments account for the majority of the paid workforce, and formal training programs are more prevalent in large establishments than in small ones.

The proportion of employees in training establishments also varies by industry group. The transportation, communications, and utilities and the public administration industries have the highest proportion (more than 90 per cent), while the trade, the "other services", and the construction industries have the lowest (56, 44, and 32 per cent respectively).

The lower-than-average coverage in the latter groups may be partly attributable to the fact that these industries have a high incidence of small establishments and that employment in them is often characterized by part-time, seasonal, or contractual arrangements.

Although about two-thirds of the full-time paid workforce is employed in establishments that sponsor formal training programs, this finding cannot be used as a guide to the actual proportion of employees who are afforded an opportunity to participate in employer-sponsored programs.

The Extent Of Employee Participation

Given the design of the survey, an employer could qualify as a training establishment simply by reporting one employee enrolled in a formal training program some time during 1984. Consequently, the incidence of formal training programs is only a limited measure of employer-sponsored training programs, at best indicative of employers' acceptance of the concept of training and its role in human resource management. A more realistic measure involves the volume of training stated in terms of the proportion of employees who participate in formal programs.

As already noted, the survey categorizes formal training programs in two major groups. Those called general skill programs include training that is sometimes considered to be of general interest or "educational" in nature and often applies to a broad range of occupations or jobs in a company -- for example, structured practice in writing, language training, and introduction to microprocessors. Qualifying or upgrading training, on the other hand, is defined to include programs designed to qualify an employee to work in a specific job or to provide an experienced worker with improvement or upgrading in skills or further specialization in his or her job.

The variation in the extent of employee participation in each type of program is reviewed below with respect to establishment characteristics and occupational categories. In examining these results on participation,

one should bear in mind that during the survey year some employees could have received instruction in both training categories or in several courses within one category.

Employee Participation by Establishment Characteristics

Overall, the survey shows 13 per cent of all Ontario's full-time employees participating in formal general skill training programs and 11 per cent participating in formal qualifying or upgrading programs. As shown in Table 2, the greater participation in the general skill category is evident in the larger employment-size groups and in most industry groups; only the primary industries, particularly the mining sector, and the "other services" have more employees involved in the qualifying or upgrading training category.

Since some employees could have participated in both types of programs during the course of the year, using a combined enrolment rate of 24 per cent may involve some overstatement. Nevertheless, this measure provides a convenient tool for comparing the relative volumes of training among employment-size and industry groups.

The large establishments have the highest overall enrolment levels, partly because of their employees' high rate of participation in general skill training programs. Employee participation in the two training categories is about even for each of the smaller size groups.

Across industries, the participation rate ranges from 37 per cent in public administration to 19 per cent in trade and 14 per cent in construction. The relatively high rate of employee participation in public administration results from extensive enrolments in general skill programs. In construction, enrolments are about even for the two program categories. The combined rate in all other major industry groups is between 20 and 30 per cent, but some subgroups show notable differences. In the primary group, the mining sector has extensive participation in qualifying or upgrading training programs, while in manufacturing, employee participation in the nondurable goods sector is significantly lower than in the durable goods sector across both types of programs.

TABLE 2
Extent Of Formal Training Programs In Ontario Industries, 1984

Establishment Characteristics	Percentage of Employees Participating in Formal Training Programs		
	General Skill Training	Qualifying or Upgrading Training	Combined Participation Rate
<u>Size (number of employees)</u>			
Fewer than 20	10.6%	11.2%	22%
20 - 199	8.9	7.9	17
200 or more	16.9	12.6	30
<u>Industry Group</u>			
Primary	10.6%	18.2%	29%
Mining	17.5	31.3	49
Construction	7.1	6.6	14
Manufacturing	14.6	9.0	24
Durable Goods	17.5	10.9	28
Nondurable Goods	10.4	6.2	17
Transportation, Communications, and Utilities	11.3	10.7	22
Trade	9.7	8.9	19
Service	14.1	13.1	27
Finance and Business Services	15.7	13.5	29
Health and Education	14.8	9.2	24
Other Services	8.5	16.5	25
Public Administration	24.3	13.1	37
All Industries	13.3%	11.0%	24%

Employee Participation by Occupational Group

Almost 28 per cent of "white-collar" employees (those in managerial, professional and technical, clerical, and sales occupations) participate in both types of formal training programs (see Table 3). "Blue-collar" employees (those in service, production and processing, transportation and material handling, construction, and occupations related to primary resources) have lower enrolment levels in both categories; their participation in qualifying or upgrading programs is slightly more pronounced than in general skills training.

Of the two types of training, the qualifying or upgrading programs are usually more directly related to a specific job or occupation. Thus, the duration of training in this category is of considerable interest. Generally, short-term programs (those of less than two weeks' -- 70 hours' -- duration) reflect the emphasis employers place on training in very specific skills directly related to processes of producing goods or providing services, whereas longer-term programs (those lasting two weeks or more) can be expected to focus on a broader range of skills, which may be transferable to other firms and industries.

Approximately 3 per cent of all Ontario's full-time employees participated in the longer-term qualifying or upgrading programs in 1984. On the whole, these programs included a slightly higher proportion of employees in non-office occupations (3.2 per cent) than of office employees (2.4 per cent).

Reasons For Not Offering Qualifying Or Upgrading Training Programs

As noted earlier, about 20 per cent of all Ontario establishments provided some qualifying or upgrading training programs for their employees in 1984. Of the 80 per cent that did not, one out of every five had such programs before 1984 but discontinued them sometime during the 1979-83 period, while four out of five had not offered this type of training at all during this period.

TABLE 3

Extent of Formal Training Programs
in Ontario Industries, 1984

Occupational Category of Employees	Percentage of Employees Participating in Formal Programs for	
	General Skill Training	Qualifying or Upgrading Training
White-Collar Employees	16.0%	11.5%
Managerial and Administrative (excluding supervisors)	19.2	10.6
Professional and Technical	15.5	13.8
Clerical/Office	15.0	10.2
Sales	15.7	11.6
Service and Production Employees	9.7%	10.3%
Service (protective, food and beverage, accommodation, etc.)	10.5	16.9
Production (processing, assembly, machining, maintenance repair, etc.)	11.4	10.1
Construction Trades	7.7	7.1
Transport and Equipment Operating and Materials Handling	3.5	3.5
Primary Occupations (forestry, fishing, mining, etc.)	5.7	15.3
All Employees	13.3%	11.0%

In considering employers' reasons for not undertaking training, it is helpful to recall that when the survey was undertaken in late 1984, the Ontario economy was moving into a period of expansion. Employment had grown significantly, particularly for full-time positions, yet only in construction, finance, service, and public administration had the pre-recession levels of 1981 been regained. There is some evidence that the training decisions of some employers during the survey reference period were influenced by the previous downturn in economic growth and/or the available pool of experienced workers. As demonstrated in the next subsection, however, in the longer term, most employers base their training decisions on factors other than the level of economic activity.

Reasons For Not Offering Qualifying Or Upgrading Training, 1979-1984

As one would expect in light of the findings presented earlier, the establishments without formal qualifying or upgrading programs tend to be smaller and from industries where the incidence of training is generally lower.

The main reasons establishments reported not offering qualifying or upgrading training during the 1979-84 period are summarized in Table 4. These data should be interpreted with some caution because the responses in this part of the survey could have been influenced by the respondents' interpretation of the "main reason" categories used for this question.

Employers' most frequent main reasons for not offering qualifying or upgrading programs are 1) that informal training meets the establishment's needs (31 per cent), and 2) that the establishment lacks the capacity to provide this type of formal training (also 31 per cent). Although these two reasons have the same incidence, their importance varies considerably by employment-size group and by industry.

"Lack of capacity" is an especially significant reason for the small establishments. One-third of them did not provide qualifying or upgrading programs in the last five years mainly because they do not have the capacity to do so. By contrast, the respective figures for medium-size and large establishments are 12 per cent and 3 per cent.

TABLE 4

Establishments' Main Reason for Not Offering Formal Qualifying or Upgrading Training Programs

Establishment Characteristics	Informal Training Meets Needs	Lack of Capacity for Training	Prefer to Recruit Qualified Trained Workers	Few Skilled Jobs	Prohibitive Cost	Risk of Losing Trained Employees	Other	Not Stated
<u>Size (number of employees)</u>								
Fewer than 20	30.4%	32.6%	11.3%	7.9%	2.8%	0.6%	3.0%	11.5%
20 - 199	41.0	11.6	18.9	8.9	5.2	2.1	2.0	10.3
200 or more	35.3	2.8	27.1	21.3	1.8	0.0	1.8	10.5
<u>Industry Group</u>								
Primary	14.3%	55.5%	5.9%	10.1%	0.2%	1.2%	2.2%	10.4%
Mining*	26.7	22.1	10.3	22.8	1.1	3.2	5.1	8.7
Construction	16.0	43.2	12.3	11.3	1.2	1.2	3.7	11.1
Manufacturing	36.3	17.7	7.7	18.4	6.1	0.8	1.8	11.2
Durable Goods	40.4	13.9	8.7	11.1	6.7	0.8	2.6	15.9
Nondurable Goods	34.0	19.9	7.1	22.7	5.7	0.9	1.2	8.5
Transportation, Communications, and Utilities	33.8	28.9	16.0	9.4	1.0	0.2	4.3	6.4
Trade Services	38.6	25.9	6.7	10.1	4.0	1.0	3.1	10.5
Finance and Business Services	34.0	27.9	16.9	2.4	2.9	0.2	2.8	12.9
Health and Education	32.9	27.3	17.2	2.1	3.5	0.0	6.3	10.8
Other Services	38.7	24.9	15.3	8.1	1.1	0.0	0.1	11.7
Public Administration*	33.4	29.7	17.2	0.8	3.0	0.5	0.2	15.3
All Industries	30.7	22.6	9.4	13.0	6.0	0.0	4.2	14.0
	31.0%	31.3%	11.8%	7.9%	2.9%	0.7%	2.9%	11.4%

*Interpret with caution because base size is between 50 and 100.

"Informal training meets needs" is a reason less subject to variations by employment size, but industry group makes a difference. This reason appears especially significant in the durable goods manufacturing, trade, and health and education sectors. In each of these sectors, approximately 40 per cent of the establishments feel that informal training meets their needs. Special labour market features may be a factor here. For example, most health and education establishments employ workers in many highly specialized occupations for which outside recruiting is the norm; the emphasis is on orientation and other types of informal training. In the manufacturing and trade industries, many jobs are filled by hiring people who meet minimum recruitment standards and then bringing them up to par through informal training on the job.

The next two most frequently cited main reasons for not offering formal training are 1) a preference for recruiting qualified trained workers (12 per cent), and 2) the fact that an establishment has only a few skilled jobs so formal skill training is not necessary (8 per cent). There is a very marked trend for the preference to recruit trained workers to increase as the size of establishment increases.

A relatively small proportion of respondents listed two other survey choices -- prohibitive cost and the risk of losing trained employees to other firms -- as the main reason for not providing formal qualifying or upgrading training programs. Employers' interpretation of the survey question may, however, have had some impact here. The fact that so few cited cost but so many cited lack of capacity is suggestive of a problem in interpretation.

Reasons For Cancelling Training Programs, 1979-1984

Some 9 per cent of establishments did offer qualifying or upgrading programs at some time during the 1979-83 period but not in 1984. Of these, about 45 per cent last offered such programs in 1983, 10 per cent in 1982, 19 per cent in 1981, and the remaining 26 per cent in 1979 or 1980.

As shown in Table 5, the two most frequently cited reasons for dropping such programs were that the establishment could meet needs by hiring

qualified trained workers and that the downturn in the economy reduced the demand for workers. Each was also offered as the main reason by 24 and 17 per cent of establishments respectively.

Future plans were surveyed for all the establishments not offering qualifying or upgrading training programs during the reference period, regardless of prior involvement in such programs. Nine per cent indicated that they planned to initiate or sponsor such programs within three years.

TABLE 5

Reasons for Having Stopped Offering
Qualifying or Upgrading Training

Reasons	Percentage Indicating	
	Among Reasons	As Main Reason
We are now able to meet our needs by hiring qualified, trained workers	30.0%	23.8%
The downturn in the economy resulted in a reduced demand for workers	25.9	16.7
This establishment no longer has the capacity to provide formal training	16.3	9.1
The type of work done at this establishment has changed; formal training is no longer necessary	13.1	8.6
The cost of formal training was prohibitive	12.7	6.1
Other reasons	19.3	16.2
Not stated	16.7	19.5

EMPLOYER TRAINING PATTERNS

Analysis of the survey results reveals a number of significant patterns among establishments that report formal training programs. This section of the paper focusses on the more important of these patterns, which involve types of training programs, the incidence and nature of longer-term programs, training budgets, employers' experience with government training-assistance programs, and training to meet changes in staffing arrangements.

Types of Training Programs

As noted in the previous section of this paper, 27 per cent of all establishments in Ontario have formal training programs. About 37 per cent of them offer only general skill training, 26 per cent provide only qualifying or upgrading training, and the remaining 37 per cent sponsor both types of programs.

The use of only one program category is most pronounced among the smaller establishments (those with fewer than 20 employees), and they place the heaviest emphasis on qualifying or upgrading programs (see Table 6). Understandably, the larger the establishment, the more likely it is to be in a position to offer a variety of programs to meet the perceived needs of its employees. Eighty per cent of the large establishments (those with 200 or more employees) that sponsor training offer programs in both categories.

Sponsorship of qualifying and upgrading training only is most extensive in establishments in the construction, trade, and "other services" industries. The reason seems to be twofold: 1) these industries have many small establishments; and 2) many of these industries traditionally rely on skills acquired by apprenticeship training or other industrial training programs.

Enrolment in Long-Term Qualifying or Upgrading Training Programs

For the purposes of this study, a long-term program is defined as one giving a trainee 70 or more hours (a minimum of two weeks) of instruction from start to finish. The total instruction time can include a combination of teaching modes, such as classroom training and on-the-job training.

TABLE 6

Distribution of Establishments Offering Any Formal Training

Establishment Characteristics	General Skill Training Only	Qualifying or Upgrading Training Only	Long-Term Qualifying or Upgrading Training Programs		
			Both Types of Programs	31.3%	34.0%
<u>Size (number of employees)</u>					
Fewer than 20	27.8%	40.9%			
20 - 199	19.0	25.7		55.2	43.0
200 or more	10.2	9.6		80.2	68.6
<u>Industry Group</u>					
Primary	31.4%	25.0%		43.7%	24.4%
Mining	16.8	29.8		53.4	54.2
Construction	33.4	46.0		20.6	51.0
Manufacturing	26.5	28.7		44.8	54.0
Durable	14.1	36.4		49.6	70.0
Nondurable Goods	42.6	18.8		38.6	33.4
Transportation, Communications, and Utilities	38.5	22.2		39.3	20.0
Trade Services	28.0	40.5		31.5	39.8
	20.5	38.9		40.6	27.1
Finance and Business Services	33.0	26.9		40.1	24.0
Health and Education	19.2	28.8		51.9	42.8
Other Services	8.4	55.1		36.5	23.7
Public Administration	23.8	33.0		43.2	32.6
All Industries	25.7%	37.2%		37.1%	36.7%

About 37 per cent of the training establishments provide some long-term qualifying or upgrading training programs. The use of long-term programs increases with employment size, and it is above average among establishments in construction (51 per cent), health and education (43 per cent), and trade (40 per cent). It is also relatively high in two subgroups. One of these is the mining industry (54 per cent), which recently placed special emphasis on a modular type of training program for industrial skills. The other is the durable goods manufacturing sector, in which 70 per cent of training establishments offer long-term training — the highest proportion for any industry group and a sharp contrast to the 33 per cent found in the nondurable goods manufacturing sector.

A close examination of the duration of "long-term" programs suggests, however, that for most trainees the instruction period is still relatively short. Table 7 shows that it is two weeks in duration for 25 per cent of enrollees and three weeks for another 18 per cent. About 24 per cent of all trainees are enrolled in programs lasting 13 weeks or more.

Long-term trainees participate in the seven types of programs listed in the lower half of Table 7. Enrolments are highest in professional, technical, apprenticeship, and nonapprenticeship trade and manual skills programs, with each accounting for about 16 to 20 per cent of all trainees. Proportionately fewer workers are enrolled in long-term programs in the managerial/supervisory, sales, and office/clerical categories.

Training Budgets

Only about one-fourth of the training establishments report having a training budget for the specific location of operation.* As expected, the larger the establishment, the greater the likelihood of its having cost

* Each respondent was instructed to answer all the survey questions for a specific location of operation only, even if it was a branch plant or other subsidiary location.

TABLE 7

Distribution of Long-Term Trainees, 1984

Duration and Type of Program	Percentage of Long-Term Trainees
<u>Duration of Instruction Time</u>	
2 Weeks	24.8%
3 Weeks	17.8
4 Weeks	5.6
5-6 Weeks	6.9
7-12 Weeks	7.1
13-52 Weeks	12.1
More than 52 Weeks	12.2
Not Stated	13.6
Total	100.1%
<u>Type of Training Program</u>	
Managerial/Supervisory	9.7%
Professional	18.0
Technical	19.9
Sales	9.2
Apprenticeship	18.9
Nonapprenticeship Trade and Manual Skills	16.3
Office/Clerical	8.0
Total	100.0%

Note: Some totals exceed 100 per cent because of rounding.

estimates for training. Many establishments, regardless of size, indicate difficulty in estimating training budgets for their location because such budgeting is done at the headquarters for all Ontario-based operations or for Canada as a whole without specifically identifying the Ontario portion.

What is noteworthy about the budgets that do exist is the lack of uniformity in accounting for the various costs associated with training (see Table 8). For example, a majority (70 per cent) include tuition, travel, and accommodation for trainees; these costs are more frequently reported in some industries, such as finance and business services and health and education, than by others, such as construction. Wages and salaries for employees in training are included by 46 per cent of the establishments with training budgets; establishments in construction and durable goods manufacturing are more likely to account for such costs than establishments in other industries.

TABLE 8
Items Included in Training Budgets by
Training Establishments, 1984

	Percentage of Establishments
Wages and Salaries of Employees	45.9%
Wages and Salaries of Instructors	33.9
Tuition, Travel, Accommodation	70.0
Administrative Costs	16.3
Overhead Costs: Machinery, Power, Materials	20.6
Other (including other overhead)	1.7
Not Stated	1.4

It can be argued that these variations in accounting practices reflect the reality of training costs incurred in different industries. Yet overhead and administrative costs (included by 21 and 16 per cent of the establishments respectively) are most likely to be accounted for by large establishments, although these expenses are presumably incurred in all types of formal training situations, regardless of the sponsoring establishment's size.

Experience With Government Training-Assistance Programs

In 1984, four government training-assistance programs - two funded by the provincial government and two by the federal government - represented the major programs directed at generating skills training in industry. Eligibility for assistance differed under each of the four and depended on the type of organization, its size, and its industry. Briefly, the programs and the thrust of each were:

- o Training in Business and Industry (TIBI). Designed to provide upgrading and training of employees with the costs shared equally by the employer, the employee, and the Ontario government.
- o Ontario Training Incentives Program (OTIP). Designed to encourage private-sector employers to hire, train, and retain new workers by giving bonuses to employers who retained trainees from the federal GIT or CTST programs.
- o Critical Trade Skills Training (CTST).* Designed to alleviate shortages in certain occupations that require long-term (two years or more), technically complex training by offering trainee wage subsidies to private-sector employers who provided long-term training in occupations in which supply was designated as being in critical shortage nationally.

General Industrial Training (GIT).* Designed to address a somewhat wider range of high- and middle-skill occupations that require shorter-term training than those designated by CTST, by providing financial support to private-sector employers to train personnel in occupations meeting national or regional priorities.

The vast majority of training establishments were not aware of these programs. TIBI - the most familiar one - was unknown to 88 per cent of them, and CTST was unknown to 93 per cent.

* CTST and GIT have been phased out since the survey was conducted.

Nevertheless, about 12 per cent of the formal-training establishments did participate in at least one of the four programs in 1984. Participation increased with employment size, from a low of 10 per cent for the small establishments to about 33 per cent for the large ones (see Table 9).

Participation also varied significantly among industries. Some 34 per cent of the establishments in durable goods manufacturing and 21 per cent of those in nondurable goods manufacturing participated in at least one of the four government programs, as did 35 per cent of the establishments in the mining industry. In all other industries, participation was considerably lower, averaging about 8 per cent. Almost 74 per cent of the participating establishments utilized only one program; the others used a combination of two or more programs.

TABLE 9

Training Establishments Participating
in Government Assistance Programs, 1984

Establishment Characteristics	Percentage of Establishments
<u>Size (number of employees)</u>	
Fewer than 20	9.8%
20 - 199	16.3
200 or more	32.6
<u>Selected Industry Group</u>	
Mining	34.7%
Durable Goods Manufacturing	33.8
Nondurable Goods Manufacturing	21.1
All Other Industries	8.4
Total Training Establishments	11.7%

About 71 per cent of the participating establishments felt the programs were "quite helpful", and another 24 per cent found them "somewhat helpful" in meeting the employers' training objectives (see Table 10). Overwhelmingly, the most important reason cited for this favourable rating was the provision of financial assistance. "Guidance on how to set up the training course" and "helpful in recruiting suitable trainees" were also cited as factors by about 7 and 4 per cent of the establishments respectively. More than 80 per cent of the participating establishments planned to use the programs again in the near future.

Reasons for training establishments' not participating in government programs are also shown in Table 10. Approximately 30 per cent of the employers who were aware of the programs indicated that they were not suitable for their needs, 13 per cent cited "too many administrative requirements", and 12 per cent reported being ineligible. The least frequently cited reason for nonparticipation was "insufficient financial assistance".

Training for Changes in Staffing Arrangements

One of the reasons establishments may sponsor training is to accommodate changes in staffing arrangements that result from "technological change". About 10 per cent of all employers indicated that their staffing arrangements changed as a result of the introduction of new equipment or processes in 1983 or 1984. This proportion was heavily influenced by the fact that the majority of Ontario establishments are small. As shown in Table 11, only 7 per cent of the small ones experienced changes, but about two-thirds of the large establishments did so.

Establishments in the manufacturing sector were affected most frequently; about one-fourth of all establishments in durable and nondurable goods manufacturing had such staffing changes in the 1983-84 period. At the other end of the spectrum, fewer than 10 per cent of the establishments in the primary, construction, trade, education and health, and "other services" industries were affected.

TABLE 10
**Rating of Government Training-Assistance
 Programs, 1984**

Establishments Participating in Government Training-Assistance Programs	Percentage of Establishments
Program(s) Reported as	
Quite Helpful	71.1%
Somewhat Helpful	23.9
Not Helpful at All	1.8
Not Stated/Don't Know	3.3
Total	<hr/> 100.0%
Reasons for Rating Program(s) Helpful	
Guidance on How to Set Up the Training Course	6.8%
Help in Recruiting Suitable Trainees	4.0
Financial Assistance Provided	81.5
Other	0.1
Don't Know	7.6
Total	<hr/> 100.0%
Plan to Use the Program(s) in the Near Future	
Yes	84.1%
No	9.3
Not Stated	6.6
Total	<hr/> 100.0%
Establishments Not Participating in Government Training-Assistance Programs	Percentage of Establishments
Reasons for Not Participating	
Not Suitable for Needs	29.5%
Insufficient Financial Assistance	3.4
Too Many Administrative Requirements	12.9
Not Eligible	11.6
Other	6.6
Not Stated	36.1
Total	<hr/> 100.0%

Note: Some totals exceed 100 per cent because of rounding.

Of those establishments that experienced change, more than 90 per cent engaged in training existing employees to acquire the skills needed to work with the new equipment or process. This extensive use of training was fairly consistent across all these establishments, regardless of size or industry.

Some of this considerable amount of training was provided by formal programs (as defined in this study) and some by informal, on-the-job training (work under normal work or production conditions either with an experienced worker or under the direction of a supervisor). Overall, informal training occurred much more frequently than formal training (see Table 11). As shown in Table 11, about 30 per cent of the affected establishments provided formal training to nonproduction employees and 12 per cent of them gave it to production employees. Informal training was provided to nonproduction employees by 56 per cent of the affected establishments and to production workers by 38 per cent. Thus, an estimated 30 per cent of all the employees receiving training in the 1983-84 period were enrolled in formal programs; for 70 per cent, the training was informal.

TABLE 11
Change in Staffing Arrangements and Use of Training to Accommodate Change

Establishment Characteristics	Percentage Indicating Change in 1983-1984	Percentage Using Formal and Informal Training		Percentage Providing Formal Training to Production and Service Employees	
		Office Employees	Employees	Office Employees	Employees
<u>Size (number of employees)</u>					
Fewer than 20	6.6%	91.9%	27.6%	10.2%	
20 - 199	31.7	93.0	31.8	14.0	
200 or more	67.5	96.4	38.4	19.6	
<u>Industry Group</u>					
Primary	4.3%	74.1%	4.0%	21.3%	
Mining	12.5	91.3	28.9	11.4	
Construction	4.6	90.5	13.3	26.8	
Manufacturing	24.4	92.4	24.1	19.5	
Durable Goods	24.5	93.5	22.5	19.8	
Nondurable Goods	24.4	91.5	25.6	19.3	
Transportation, Communications, and Utilities	13.9	91.7	50.4	3.6	
Trade Services	7.8	85.9	28.2	17.7	
Finance and Business Services	9.0	98.4	35.5	2.1	
Health and Education	10.2	99.0	21.9	1.6	
Other Services	5.1	96.1	16.0	3.7	
Public Administration	9.1	98.2	54.1	2.3	
All Industries	17.0	97.1	70.4	3.7	
	9.6%	92.6%	29.7%	12.0%	

CONCLUDING REMARKS

The focus of this study was primarily on the formal training that employers offered their employees in 1984, with an emphasis on examining the incidence of the programs, their availability to employees, and the factors that affect employers' decisions to sponsor formal programs.

Any study of this kind has limitations with respect to measurements, definitions, coverage, and respondents' perceptions. In addition, the findings always seem to invite further concerns and investigation. For example, during the course of this survey some employers expressed a concern that their efforts in informal training were being ignored. Others were anxious to learn more about the government training-assistance programs listed in the questionnaire, and still others were looking forward to the survey results so that they could compare their firms' performance to overall averages.

For those who have an interest in formal, employer-sponsored training programs from either a policy or a program-administration perspective, another important question is whether the volume of training that is taking place in an industry is adequate for the industry's own needs and, more generally, whether the supply of training is sufficient for the economy as a whole, especially given the pressures of technological change and international competition.

These and similar concerns cannot, of course, be addressed through a one-time study such as this. A more concerted and prolonged research effort is required to test the depth and adequacy of industry's training activities. It is hoped, however, that some of the more critical information gaps have been filled through this study.

APPENDIX A: Population Characteristics

The research required that estimates of the incidence of training be provided for various industry and employment-size groups. Both employers and employees were to be used as analysis units. Accordingly, the target population comprised all establishments in Ontario (businesses, institutions, and so on) according to the location of their principal business activity. For sampling purposes and for projecting and adjusting the sample, the establishment universe was derived from the Dun & Bradstreet listings, the Statistics Canada Business Register File, the 1984 Municipal Directory, and listings of federal (Ontario employment only) and provincial government ministries and departments. These sources yielded a universe of 247,616 establishments.

As demonstrated in Table A.1, about 90 per cent of these approximately 248,000 establishments in Ontario in 1984 had fewer than 20 employees. An additional 9 per cent of the establishments had between 20 and 199 employees, while only 1.1 per cent had more than 200 employees. It should be noted that the size of the establishment was location-based and that establishments represented several different types of business organizations - single-location operations, branch plants, or divisions, as well as company headquarters.

By industry, the service group had the highest proportion of establishments, accounting for almost 41 per cent of the Ontario total. Within this industry group, the finance and business services and the education and health sectors had a high proportionate share of the larger establishments, while the "other service" sector did so among the smaller establishments. Trade and construction accounted, respectively, for 26 and 12 per cent of establishments; characterized by a preponderance of small firms, these industries had a higher-than-average share of the smaller establishments. Manufacturing, accounting for 10 per cent of all establishments, on the other hand, had significantly higher-than-average shares of the 20-to-199 and 200-and-more employee-size categories. Almost 8 per cent of all establishments were in the primary industry, and although most primary industry establishments are of relatively small size, the mining sector of this industry was characterized by a fairly large share of the 200-plus employees group.

TABLE A.1

Distribution of Establishments in Ontario

	Establishments by Employment Size: % with					Establishments by Industry: % of				
	Fewer than 20 Employees		20-199 Employees		Total	All Establishments		Fewer than 20 Employees		20-199 Employees
	Employees	Employees	Employees	Total	Employees	Employees	Employees	Employees	Employees	Employees
Primary	97.6%	2.2%	0.2%	100.0%		7.5%	8.1%	1.8%	1.3%	
Mining	77.0	17.8	5.2	100.0		0.3	0.2	0.5	1.2	
Construction	96.6	3.4	0.1	100.0		12.2	13.1	4.6	0.9	
Manufacturing	68.8	27.4	3.8	100.0		10.1	7.8	31.0	34.7	
Durable Goods	65.2	30.7	4.0	100.0		4.9	3.5	16.8	17.6	
Nondurable Goods	75.2	24.2	3.6	100.0		5.3	4.2	14.2	17.1	
Transportation, Communications, and Utilities	85.9	11.9	2.0	100.0		3.8	3.6	5.0	7.1	
Trade	92.2	7.5	0.3	100.0		25.5	26.1	21.4	6.5	
Services	90.9	7.8	1.3	100.0		40.6	41.0	35.5	46.2	
Finance and Business Services	88.1	9.7	2.2	100.0		17.1	16.7	18.5	34.0	
Education and Health	88.2	9.9	1.8	100.0		6.0	5.9	6.7	10.2	
Other Services	94.6	5.3	0.1	100.0		17.5	18.4	10.3	2.0	
Public Administration	72.0	17.3	10.6	100.0		0.3	0.3	0.7	3.3	
All Industries	89.9%	9.0%	1.1%	100.0%		100.0%	100.0%	100.0%	100.0%	100.0%

APPENDIX B: Technical Report on Survey Methodology *

The objective of the research was to identify the extent and nature of training that is being offered by Ontario industries to their employees and to describe the characteristics of establishments providing training. The study was conducted by Canadian Facts, which was responsible for survey methodology on sampling, data collection, and instruments for data processing, and for statistical analyses. Canadian Facts was also responsible for conducting a pilot study to test the survey methodology to assess the feasibility of the project in meeting its stated objectives. The following reports the survey method utilized for the main study.

Survey Concepts and Definitions

This survey was establishment based — that is, the data were collected from businesses, institutions, and so on. The employer was asked to report for the establishment at the receiving location; this means that an organization with more than one branch or location was asked to confine its report to the location that receives the questionnaire. This approach was taken with the view that the required information would be more readily and easily collected by employers at this level of organization.

Formal Training Definitions

For the purpose of this survey, "training" was confined to formal programs designed to develop a worker's occupational skills. Safety and orientation training was excluded from this definition.

A formal program was defined as any prearranged structured program that requires an instructor. Instruction could take place on the job, in a classroom setting, or via correspondence or a computerized program. Classroom instruction could take place at a company location or at a postsecondary institution.

Within this concept of occupational skills training and development, the research addressed two main categories of formal training:

- o Qualifying or upgrading training - occupation-specific formal training programs that are designed either to qualify or to upgrade skills in a specific occupation. Of particular interest is longer duration training -- that is, training that involves two weeks or more of instruction time.
- o General level skill training - formal training programs that are of a much more general focus and are typically offered to people in a broad range of occupational titles.

* This appendix was prepared by Canadian Facts, whose contribution is gratefully acknowledged.

Survey Population

The population was defined as all employers in Ontario industry (businesses, institutions, and so on). Both the commercial and the noncommercial sectors, including public administration, were part of the defined survey population. The only "industry" group excluded from this definition was religious organizations.

The Sample Frame

The Private Sector

The Dun & Bradstreet listings were used to sample larger companies/organizations at each of their physical locations. All industry groups were included except religious groups and public administrators. The listings comprised the following:

- o All single-location and branch-location establishments with 20 or more employees at the location.
- o All branches that have fewer than 20 employees at the location and that are attached to the larger organizations.

The Statistics Canada Business Register File served as the source for sampling smaller single-location (1 to 19 employees) establishments. The Business Register File includes all legal entities in Ontario. It was assumed that a legal entity with 1 to 19 employees would in most cases be a single-location organization.

The Public Sector (Federal, Provincial, and Municipal Governments)

Because training data tend to be routinely collected for government departments as a whole, the branch-specific reporting mode was not considered a feasible approach. The government department as a whole was, therefore, defined as the reporting unit.* A complete listing of the federal and Ontario government departments and ministries was included. For municipal governments, the 1984 Municipal Directory was used as the sampling source.

Sample Size and Nature

The research required that estimates of the incidence and nature of training activity be provided for different industry groups, using both employers and employees as analysis units. This meant that adequate subsamples of organizations of different size groups and industry groups had to be included in the sample.

The matrix in Table B.1 shows the breakdown of the distribution of the survey population by industry group within employment size. It can be seen that organizations with fewer than 20 employees account for 90 per cent of

* In the case of federal government departments, the report was confined to Ontario based employees.

TABLE B.1
Estimated Population and Sample for Establishments in Ontario

Industry Group	Size (number of employees)				
	1 - 19	20 - 49	50 - 199	200+	Total
Agriculture	17,240 (279)	144 (130)	36 (32)	6 (6)	17,426 (447)
Forestry	764 (284)	2 (2)	0 (0)	0 (0)	766 (286)
Fishing/Trapping	249 (99)	6 (6)	1 (1)	1 (1)	257 (107)
Mines/Quarries/ Oil	542 (226)	66 (60)	44 (39)	29 (22)	681 (347)
Building/ Construction	29,155 (569)	910 (207)	336 (310)	46 (41)	30,447 (1,127)
Manufacturing Durable	5,284 (141)	1,652 (110)	1,173 (222)	466 (425)	8,575 (898)
Manufacturing Nondurable	6,246 (276)	1,369 (103)	1,208 (224)	397 (374)	9,220 (977)
Transportation	6,966	566	284	61	7,877
Storage	205	77	34	3	319
	7,911 (314)	754 (176)	418 (199)	100 (93)	9,183 (782)
Utilities	484	47	51	21	603
Communication	256	64	49	15	384
Wholesale	15,152 (393)	1,476 (178)	534 (171)	82 (80)	17,244 (822)
Retail	43,103 (577)	2,418 (196)	818 (197)	79 (74)	46,418 (1,044)
Business/Finance	39,278 (211)	1,533 (214)	838 (192)	306 (279)	41,955 (896)
Services	44,834	598	305	47	45,784
	49,585 (172)	763 (97)	384 (113)	55 (50)	50,787 (432)
Amusement/ Recreation	4,751	165	79	8	5,003
Education/Health	12,567 (100)	452 (68)	427 (65)	360 (253)	13,806 (486)
Industry Subtotal	227,076 (3,641)	11,545 (1,547)	6,217 (1,765)	1,927 (1,698)	246,765 (8,651)
Public Administration			Municipal 30M+ Under 30M Provincial Federal	59 740 26 26	851 (400)
All Industries				247,616 (9,051)	

Note: Numbers in parenthesis indicate sample size.

Ontario employers. At the other extreme, those with more than 200 employees account for less than 1 per cent. A very large proportionate sampling of the universe would have been required to provide adequate subsamples in the various industry and size groups. The sample was, therefore, assigned disproportionately across the specific industry groups and employment-size groups. Adjustment weights were applied at the analysis stage to bring the various industries within employment-size groups into balance so that the data reflect the population of Ontario employers.

For the private-sector sample, 13 specific industry groups within employment size were used as stratifying variables resulting in a 52 cell matrix (4 size categories x 13 industry groups).

The public-sector sample was stratified by federal, provincial, and municipal governments. The public-sector sample was then added to the private sector, creating a total matrix of 53 cells.

The rules governing sample allocation were as follows:

- o The minimum target mail-out sample size was set at 400 per industry group and 100 for each employment-size group within an industry sector.
- o More weight was given to larger firms and specific industrial sectors where training activity is known to be more widespread. Within each private-sector industry group, up to 50 per cent of the sample was allocated to organizations with 200 or more employees (a take-all situation in all cases); the remainder of the sample was assigned to give more weight to the medium-size firms. Exceptions to this rule were the relatively small forestry and fishing/trapping industries. In both cases, the sample size was less than 400.
- o For the public-sector sample, a census of all federal, provincial and local governments of cities/towns with 30,000 or more population was taken and the remainder of the sample was drawn in proportion to the population size of communities with less than 30,000 population.

The selected sample was screened to eliminate any firms/organizations included in the pilot phase of the project.

Table B.1 shows the size of the survey population and of the final mail-out sample.

Data Collection

The data were collected via a questionnaire, which was mailed to employers for self-completion. A stamped, addressed return envelope was provided for the returned questionnaire. In order to maximize response, the following procedures were implemented:

- o An advance telephone call was made to the selected organization to determine the name and title of the appropriate person to receive the material. The outer envelope and covering letter were then personally addressed to the designated executive.

- o The Ontario Manpower Commission and Employment and Immigration Canada were identified as the co-sponsors of the survey. The personalized covering letter that accompanied the questionnaire was signed by the chairman of the Ontario Manpower Commission.
- o A multistage follow-up of nonresponders included:
 - A second mailing of the questionnaire with a special follow-up letter directed to nonresponders, sent approximately three weeks after the first mailing.
 - A third mailing in the form of a reminder postcard sent to all nonresponders approximately three weeks after the second mailing.
 - In addition, a telephone contact made to a subsample of nonresponders at this stage to encourage their response. In total, approximately 1,000 employers were contacted at this stage.
- o A special telephone number was provided so that employers could obtain information about the survey and receive, if needed, guidance on how to fill out the questionnaire.

Rejection

Some returned questionnaires were subsequently rejected. This was caused mainly by their containing incomplete information.

Analysis of Response

The following tabulation details the yield from the mail-out sample.

Total Mailed	9051	(100%)
Not Deliverable (Moved, Wrong Address, Out of Business)	117	
No Full-Time Permanent Employees	106	
Total Completions Received	4339	(48%)
Total Rejection	73	
Total Received after Cut-Off Date	66	
Total Accepted for Analysis	4200	(46%)

Response Rate

The following tabulation shows, for each cell in the matrix table, the percentage of the total mail-out sample that was accepted for analysis.

<u>Industry Group</u>	<u>Size (number of employees)</u>				
	<u>1-19</u>	<u>20-49</u>	<u>50-199</u>	<u>200+</u>	<u>Total</u>
Primary					
Agriculture	40	52	47	50	44
Forestry	37	50	N/A	N/A	37
Fishing/Trapping	37	17	100	100	37
Mines/Quarries/Oil	48	48	64	59	50
Building/Construction	41	47	51	34	45
Manufacturing					
Durable	44	49	52	48	48
Nondurable	43	48	45	47	45
Transportation, Communications, and Utilities	46	46	45	43	45
Trade					
Wholesale	52	46	46	39	48
Retail	45	41	36	42	42
Services					
Business/Finance	40	55	45	33	43
Personal Services/ Amusement/Recreation	38	51	58	44	57
Education, Health	51	60	53	56	57
Public Administration	N/A	N/A	N/A	N/A	61

Weighting Procedures

The initial sample was drawn disproportionately across specific industry and employment-size groups. The proportion of returned questionnaires in each industry and employment-size group was also influenced by differential response rate.

Matrix weighting — by industry within size group — was applied at the data-processing stage. The universe population statistics were used for adjusting the sample.

The Questionnaire

Employment-based data were collected for full-time permanent employees. Included in "full-time permanent employment" was paid work and self-employment.

The questionnaire collected information about the principal industrial activity of the establishment. This data has been classified according to Statistics Canada's 1970 Standard Industrial Classification.

The survey also collected occupational data. The employer was asked to break down total employment within the organization in nine specific occupation groups. For each occupational group, the respondent was to provide a count of the total number of employees receiving any general skill and development training and the total number receiving any qualifying or upgrading training.

Although the specific occupational groups for which the employer was asked to categorize employment were conceptually organized according to the 1980 Standard Occupational Classification system, it is unlikely that the employers' designation of total employment into these specific occupational groups followed the intended classification scheme in all cases.

The survey also collected information on the specific job titles for which long-term (two weeks or more) qualifying or upgrading training was offered.* These occupational data were then also classified according to the 1980 Standard Occupational Classification scheme at the four-digit level.

Sampling Tolerances

The accuracy of estimates from a survey are influenced by sampling tolerances and by systematic bias resulting from methodological factors such as reporting bias, missed reporting, and nonresponse.

In this study, a check of nonresponses indicated that failure to respond was not strongly related to industry type or employment size (see the tabulation under the heading "Response Rate").

* Understandably, the start date for some of the trainees reported in these job titles may have been before 1984 and the finish date for some later than 1984.

Sampling tolerances are determined by the sample design. Theoretically, every separate estimate has its own sampling tolerance. For practical use, the following tabulation shows a basic set of sampling tolerance calculated at the 95 per cent confidence limits, (that is, these confidence limits are such that there is a 95 per cent chance of the population value — the percentage of establishments -- lying within the interval defined by the survey estimates plus or minus the sampling tolerance).

Total Sample	<u>± 3.6%</u>
<u>Employment-Size Group:</u>	
1 - 19 Employees	<u>± 3.9%</u>
20 - 49 Employees	<u>± 4.2%</u>
50 - 199 Employees	<u>± 3.6%</u>
200+ Employees	<u>± 2.8%</u>

For any given industry group, the maximum error is ± 11%.

For purposes of presenting the survey results, the data for the 20-to-49 and the 50-to-199 employee-size groups were combined.

APPENDIX C

MANPOWER TRAINING AND DEVELOPMENT STUDY

**ONTARIO MANPOWER COMMISSION
AND
EMPLOYMENT AND IMMIGRATION CANADA**

This questionnaire is to be answered for the establishment at the address specified above.
Please do not include any operations at other locations.

Conducted by
CANADIAN FACTS

INTRODUCTION:

Canadian Facts has been retained by the Ontario Manpower Commission and Employment and Immigration Canada to conduct a province-wide survey of the manpower training and development activities of employers in Ontario. The results of this survey will be used as a basis for developing training policies for the province of Ontario and for Canada as a whole.

In order to ensure that the results of the study are representative of all types of employers in Ontario, it is important that you participate in this study **REGARDLESS OF WHETHER YOU ARE PRESENTLY ENGAGED IN MANPOWER TRAINING OR DEVELOPMENT.**

Your replies will be kept in strictest confidence. The information you provide will always be aggregated with the information given by other Ontario employers.

Please return this questionnaire in the pre-stamped return envelope no later than January 21, 1985. If you have any questions please don't hesitate to call the Manpower Training And Development Survey, Canadian Facts, at (416) 924-5751.

Your response is to be confined to the activities of your establishment at the address specified on the front cover of this questionnaire. Please do not include any operations at other locations.

MANPOWER TRAINING AND DEVELOPMENT DEFINITIONS

Manpower training and development is used by industry to develop occupational skills.

Employees receiving such training and development will include managers, professionals, supervisors, sales and clerical staff as well as skilled and unskilled workers.

Employee training and development takes the form of either formal programs or informal programs:

FORMAL PROGRAMS — require an instructor and have an identifiable structured plan designed to develop a worker's skill either on-the-job, in a classroom or a specially equipped training site, or through a combination of on-the-job experience and classroom instruction. Classroom instruction can be either during or after work hours at either a company location or a post-secondary institution.

Informal training is acquired by working under normal work or production conditions either with an experienced worker or under the direction of a supervisor.

For the purpose of this survey, we are concerned about **Formal Programs** for the **training and development of occupational skills**. Safety and Orientation Training is excluded from this definition.

Included in this definition of Formal Training are two categories of programs:

CATEGORY 1 — QUALIFYING OR UPGRADING TRAINING

- **Qualifying Training** — given to qualify employees for work in an occupation. It may be given to employees with no previous work experience. It may also be given to experienced workers to qualify them to work in an occupation other than the one they hold. Examples include apprenticeship, internship, trainee positions.
- **Skill Improvement** training — given only to experienced workers to improve their skills in the occupation they now hold. Examples might include the training of cooks to become chefs.
- **Skill Specialization** training — given only to experienced workers to specialize further in their broadly defined occupational category, for example, training in physiotherapy for nurses.

CATEGORY 2 — GENERAL LEVEL SKILL AND DEVELOPMENT TRAINING — programs or courses open to a broad range of different occupations or jobs in the company. Such programs can include writing skills, presentation skills, management skills, introduction to use of micro-computers, etc.

SECTION 1 — ABOUT YOUR ESTABLISHMENT AT THIS LOCATION

(By location we mean your offices or the whole building or the whole group of buildings — whatever total activities are carried out by your organization at the address specified on the front cover of this questionnaire.)

- 1-a) What is the principal business activity of your establishment AT THIS LOCATION? That is, what types of goods or services are you manufacturing/wholesaling/retailing/servicing/providing? (PLEASE BE AS SPECIFIC AS YOU CAN)

10/13-

- b) Which of the following best describes the main function of your establishment AT THIS LOCATION?
(CIRCLE ALL THAT APPLY)

Headquarters	14-1
Division	2
Factory Or Plant	3
Sales Office Or Branch	4
Other	5

- c) What is the total number of full-time permanent people employed by your establishment AT THIS LOCATION?
(INCLUDE ANY EMPLOYEES WHO MAY WORK IN THE FIELD BUT HAVE THEIR EMPLOYMENT ADMINISTERED
AT THIS LOCATION)

FULL-TIME PERMANENT EMPLOYEES

AT THIS LOCATION:

15/20

- d) Does your organization have any other locations or addresses IN ONTARIO apart from this location?

YES 21-1 NO 2 → SKIP TO Q. 1-f)



- e) What is the approximate number of full-time permanent people employed in your organization at all locations in Ontario?

FULL-TIME PERMANENT EMPLOYEES

AT ALL ONTARIO LOCATIONS:

22/27

- f) What is the approximate number of years your organization has been in operation in Ontario?

TOTAL YEARS OF OPERATION IN ONTARIO:

28/30

FOR THE REMAINDER OF THIS QUESTIONNAIRE PLEASE REPORT ONLY FOR THE FULL-TIME PERMANENT
EMPLOYEES AT THE LOCATION SPECIFIED ON THE FRONT COVER OF THIS QUESTIONNAIRE.

(31/75)

SECTION 2 — ABOUT YOUR EMPLOYEES AT THIS LOCATION

- 2-a) What is the total number of full-time permanent people currently employed AT THIS LOCATION in each of the main OCCUPATIONAL categories listed below?
- b) For each occupational category reported in Q. 2-a) please specify the total number of employees who will have received ANY General Level Skill And Development Formal Training (Category 2, Page 2) during the 1984 calendar year. Such training can take place on or off location. (IF NONE ENTER 0)
- c) For each occupational category reported in Q. 2-a) please specify the total number of employees who will have received ANY Qualifying Or Upgrading Formal Training (Category 1, Page 2) during the 1984 calendar year. Such training can take place on or off location. (IF NONE ENTER 0)

	<input type="checkbox"/> 05	<input type="checkbox"/> 06	<input type="checkbox"/> 07
-a)	TOTAL RECEIVING ANY GENERAL LEVEL SKILL AND DEVELOPMENT TRAINING		
TOTAL CURRENTLY EMPLOYED	TOTAL RECEIVING ANY QUALIFYING/ UPGRADING TRAINING		

OCCUPATIONAL CATEGORIES:

Managerial And Administrative (Exclude Supervisors)* (10)

Professional And Technical (16)

Clerical/Office (22)

Sales (Exclude Management, But Include Technical, Commodities, Services, Sales Clerks, Etc.) (28)

Service (e.g., Protective Services, Food And Beverage, Accommodation, Personal) (34)

Production (Include Processing, Assembly, Machining, Maintenance, Repair, Etc.) (40)

Construction Trades (46)

Transport Equipment Operating And Materials Handling (e.g., Distribution) (52)

Primary Occupations (Forestry, Fishing, Mining, Etc.) (58)

Other (SPECIFY) (64)
..... (70)

TOTAL EMPLOYMENT (Should add to total given in Q. 1-c))

*Note: Include supervisors and foremen in their respective occupational categories.

76-

77-

(78/80)

SECTION 3 — ABOUT PREVIOUS QUALIFYING AND UPGRADING FORMAL TRAINING PROGRAMS (CATEGORY 1 PAGE 2)

This section is to be completed if this establishment has NOT offered ANY Qualifying/Upgrading training in 1984 as indicated in Q. 2-c) If such training was offered in 1984, skip to Section 4, Page 6.

- 3-a) Have any full-time people employed at this establishment received any Qualifying/Upgrading training at any time during the 5 year period before January 1, 1984?

YES 10-1

NO 2

- b) When was this type of training last offered?
(CIRCLE ONE ONLY)

YEAR: 1983, 1982, 1981, 1980, 1979

11/14

- c) Listed below are reasons some establishments have given for having stopped offering these types of FORMAL TRAINING PROGRAMS. Which of these reasons explain why this establishment stopped offering such training programs to its employees?
(CIRCLE ALL THAT APPLY UNDER -c) BELOW)
- d) And which ONE reason BEST explains why this organization stopped offering such training programs?
(CIRCLE ONE CODE ONLY UNDER -d) BELOW)

-c)	-d)
ALL THAT APPLY	MAIN REASON

The Downturn In The Economy Resulted In A Reduced Demand For Workers	15-1	.... 22-1	Informal Training Satisfies Our Needs	23-1	.... 31-1
The Cost Of Formal Training Was Prohibitive ..	16-1	.... 2	We have Only A Few Skilled Jobs — Formal Skill Training Is Not Necessary	24-1	.... 2
This Establishment No Longer Has The Capacity To Provide Formal Training	17-1	.... 3	We Prefer To Recruit Qualified Trained Workers	25-1	.... 3
The Type Of Work Done At This Establishment Has Changed; Formal Training Is No Longer Necessary	18-1	.... 4	The Cost Of Formalized Training Programs Is Prohibitive	26-1	.... 4
We Are Now Able To Meet Our Needs By Hiring Qualified, Trained Workers	19-1	.... 5	The Risk Of Training Employees And Losing Them To Other Firms Is Too Great	27-1	.... 5
Other Reasons (PLEASE SPECIFY) .....		.... 6	This Establishment Does Not Have The Capacity To Provide Formal Training	28-1	.... 6
		.... 7	Other Reasons (PLEASE SPECIFY) .....		.... 7

20-

21-

29-

30-

- g) In the next three years is this establishment planning to initiate or sponsor any of these types of Formal Training Programs for the people employed at this establishment?

YES.....32-1

NO.....2

→ NOW SKIP TO SECTION 4, PAGE 6

- h) In which of the following types of Formal Training Programs do you plan to concentrate most of your training activity? (CIRCLE ONE ONLY)

Managerial/Supervisory	33-1
Professional	2
Technical	3
Sales	4
Apprenticeship	5
Non-Apprentice Trade And Manual Skills	6
Office/Clerical	7

(NOW GO TO SECTION 4, PAGE 6)

SEE BACK PAGE
FOR GLOSSARY
OF DEFINITIONS

SECTION 4 — ABOUT TRAINING BUDGETS

8 9 10

This section is to be completed if ANY General Level Skill And Development training as indicated in Q. 2-b) OR ANY Qualifying/Upgrading training as indicated in Q. 2-c) is offered. Otherwise if neither is offered please skip to Section 6, Page 9.

- 4-a) Does this establishment have a training budget for the General Level Skill/Development or Qualifying/Upgrading programs that are offered to people employed at this establishment?

YES...34-1

NO... 2 → NOW SKIP TO SECTION 5, PAGE 7.



- b) What is the approximate value of the 1984 training budget for these programs? Include any funds provided through Federal and Ontario government training assistance programs if applicable. (SEE EXAMPLES SECTION 6, PAGE 9)

(35/41)

1984 TRAINING BUDGET: \$ _____ .00

- c) Which of the following items are you including in the estimate given above? (CIRCLE ALL THAT APPLY)

Wages And Salaries Of Employees	42-1
Wages And Salaries Of Instructors	43-1
Tuition, Travel, Accommodation	44-1
Administration Costs	45-1
Overhead Costs/Machinery, Power, Materials,	
Other Overhead	46-1
Other (SPECIFY) _____	47- 48-

- c) Approximately what per cent (%) of this 1984 training budget is for...?

General Level Skill And Development Programs:	%	49/51
Qualifying/Upgrading Programs:	%	52/54
100%		

- e) Approximately what per cent (%) of this 1984 budget is funded by government assistance?

PER CENT FUNDED BY
GOVERNMENT ASSISTANCE _____ % 55/57

- f) What is your best estimate of the total value of the 1985 training budget?

1985 TRAINING BUDGET: \$ _____ .00
(65/75)

SECTION 5 — LONG-TERM QUALIFYING/UPGRADING FORMAL TRAINING PROGRAMS

In this section we are interested in the details of any long-term Qualifying/Upgrading training that people employed at this establishment will have participated in during 1984. By long-term training we mean formal programs that give each trainee 70 or more hours (minimum 2 weeks) of instruction from the start of the program to the finish. The total instruction period may include a combination of teaching modes, eg. classroom on-the-job, etc. The start date can be prior to 1984, the finish date can be later than 1984.

- 5-a) Will any full-time permanent people employed at this establishment have participated in long-term training during 1984?

YES ... 10-1

NO ... 2

→ NOW SKIP TO SECTION 6, PAGE 9

- b) Please WRITE IN below each job title/trade participating in a long-term Formal Program in 1984. Then for each JOB TITLE, provide details of the program by answering Questions 5-c) to 5-i).

**NOTE: USE POSITION TITLES MOST
WIDELY USED IN YOUR INDUSTRY**

01 JOB TITLE (WRITE IN)	02 JOB TITLE (WRITE IN)	03 JOB TITLE (WRITE IN)	04 JOB TITLE (WRITE IN)	05 JOB TITLE (WRITE IN)
-------------------------------	-------------------------------	-------------------------------	-------------------------------	-------------------------------

EXAMPLE: Systems Analyst

-c) **TYPE OF TRAINING PROGRAM**

(CIRCLE ONE ONLY)

(See Back Page For Glossary Of Definitions)

Managerial/Supervisory	1	1	1	1	1
Professional	2	2	2	2	2
Technical	3	3	3	3	3
Sales	4	4	4	4	4
Apprenticeship	5	5	5	5	5
Non-Apprentice Trade And Manual Skills	6	6	6	6	6
Office/Clerical	7	7	7	7	7

-d) **DURATION OF INSTRUCTION TIME**

Total instruction time each trainee receives from start to finish of this program.

(SPECIFY NEAREST HOUR OF INSTRUCTION)

-e) **PROGRAM INSTRUCTION MODE**

Please indicate in percentage (%) terms the amount of training time trainees on this program will spend in each type of instruction mode.

(TOTAL MUST ADD TO 100%)

On-The-Job Training	%	%	%	%	%
Vendor Training	%	%	%	%	%
Correspondence/Computerized Program	%	%	%	%	%
Classroom At A Company Location During Work Hours	%	%	%	%	%
At A Company Location After Work Hours	%	%	%	%	%
Classroom At A Post-Secondary Institution During Work Hours	%	%	%	%	%
Classroom At A Post-Secondary Institution After Work Hours	%	%	%	%	%
Other	%	%	%	%	%
	100%	100%	100%	100%	100%

-f) **1984 TRAINEE ENROLLMENT**

(Specify Total Number Of Trainees Enrolled In This Program)

- g) Does the 1984 enrollment represent an increase or decrease over the 1983 enrollment?

INCREASE	1	1	1	1
DECREASE	2	2	2	2
ABOUT THE SAME	3	3	3	3

-h) **CURRENT FULL-TIME PERMANENT EMPLOYMENT**

(Specify Total Number Of Employees Currently Employed In This Job/Trade Including Trainees)

-i) **1985 TRAINEE ENROLLMENT**

(Specify Best Estimate Of The Total Number Of Trainees To Be Enrolled In This Program)

(IF YOU NEED ADDITIONAL SPACE PLEASE USE THE OPPOSITE PAGE.)

11/12

13/16

17

1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7

18/21

22/24

46/49

50	1	1	1	1	1	1	1
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3

51/54

55/58
(59/75)

SECTION 6 — ABOUT GOVERNMENT TRAINING ASSISTANCE PROGRAMS

6. Establishments will vary in terms of their experience with different Government Training Assistance Programs. In order to assess the impact some of these programs have had on your establishment, please answer Questions 6-a) to 6-h) for each of the specific programs listed below.

	ONTARIO GOVERNMENT PROGRAMS		FEDERAL GOVERNMENT PROGRAMS	
	TRAINING IN BUSINESS AND INDUSTRY (TIBI)	ONTARIO TRAINING INCENTIVE PROGRAM (OTIP)	Critical TRADE SKILLS TRAINING (CTST)	GENERAL INDUSTRIAL TRAINING (GIT)
-a) Are you familiar with this program?				
YES	10-1	24-1	38-1	52-1
NO	2	2	2	2

(IF "NO" TO ALL PROGRAMS SKIP TO SECTION 7, PAGE 10)

- b) Has this establishment participated in this program during 1984?

YES	11-1	25-1	39-1	53-1
NO	2	2	2	2

- c) (IF YES) How do you rate this program in terms of helping this establishment meet its training objectives?

(CIRCLE ONE ONLY)

Quite Helpful	12-1	26-1	40-1	54-1
Somewhat Helpful	2	2	2	2
Not Helpful At All	3	3	3	3

- d) (IF CODE 1 OR 2 CIRCLED IN Q. 6-c))

In what way would you say this program has been most helpful? (CIRCLE ONE ONLY)

Providing Guidance On How

To Set-Up The Training Course	13-1	27-1	41-1	55-1
-------------------------------------	------	------	------	------

Helpful In Recruiting Suitable Trainees	2	2	2	2
---	---	---	---	---

Providing Financial Assistance	3	3	3	3
--------------------------------------	---	---	---	---

Other (PLEASE SPECIFY)	14-	28-	42-	56-
------------------------------	-----	-----	-----	-----

- e) (IF CODE 3 CIRCLED IN Q. 6-c)) Which one of the following reasons best explains why you rate this program as being not helpful at all in helping this establishment meet its training objective?

(CIRCLE ONE ONLY)

Provided Poor Guidance On How To

Set-Up The Training Course	15-1	29-1	43-1	57-1
----------------------------------	------	------	------	------

Trainees Recruited For The Program Were Not Suitable ..	2	2	2	2
---	---	---	---	---

Too Many Administrative Requirements	3	3	3	3
--	---	---	---	---

Provided Insufficient Financial Assistance	4	4	4	4
--	---	---	---	---

Other (PLEASE SPECIFY)	16-	30-	44-	58-
------------------------------	-----	-----	-----	-----

- f) (IF YES IN Q. 6-b)) Do you plan to use this program again in the near future?

YES	17-1	31-1	45-1	59-1
-----------	------	------	------	------

NO	2	2	2	2
----------	---	---	---	---

- g) (IF "NO" IN Q. 6-b)) Has this establishment ever participated in this program?

YES	18-1	32-1	46-1	60-1
-----------	------	------	------	------

NO	2	2	2	2
----------	---	---	---	---

- h) (IF "NO" IN Q. 6-b)) Which one of the following reasons best explains why this establishment currently does not participate in this program? (CIRCLE ONE ONLY)

Not Suitable For Our Needs	19-1	33-1	47-1	61-1
----------------------------------	------	------	------	------

Provides Insufficient Financial Assistance	20-1	34-1	48-1	62-1
--	------	------	------	------

Too Many Administrative Requirements	21-1	35-1	49-1	63-1
--	------	------	------	------

Not Eligible	22-1	36-1	50-1	64-1
--------------------	------	------	------	------

Other (PLEASE SPECIFY)	23-	37-	51-	65-
------------------------------	-----	-----	-----	-----

(66/75)

SECTION 7 — ABOUT TECHNOLOGICAL CHANGE

- 7-a) In the past two years (1983/1984), has the introduction of new equipment or processes resulted in changes in the staffing arrangements at your establishment (e.g., new hires)?

YES 10-1 NO 2 → TURN TO BACK PAGE

- b) How has the introduction of new equipment or processes affected your employees in the past two years?
Please answer 7-b) for each of the three employee groups specified below.

How many existing employees received either
Formal or Informal training in order to acquire
the skills needed to work with the new equipment
or processes?
(IF NONE ENTER 0)

OFFICE EMPLOYEES	PRODUCTION EMPLOYEES	ALL OTHER EMPLOYEES
------------------	----------------------	---------------------

Formal Training
(SEE DEFINITION PAGE 2) 11-_____ 29-_____ 47-_____

Informal Training
(SEE DEFINITION PAGE 2) 14-_____ 32-_____ 50-_____

How many employees were hired with the specific
skills required to work with the new equipment
or processes?
(IF NONE ENTER 0)

17-_____ 35-_____ 53-_____

How many employees were transferred
to some other branch or division of the company?
(IF NONE ENTER 0)

20-_____ 38-_____ 56-_____

How many employees were laid-off?
(IF NONE ENTER 0)

23-_____ 41-_____ 59-_____

How many employees lost through
normal attrition were not replaced?
(IF NONE ENTER 0)

26-_____ 44-_____ 62-_____

- c) In the past two years, what percentage (%) of your operations or production capacity do you estimate had to be curtailed because of the unavailability of appropriately trained personnel?

65-_____ %

(IF NONE ENTER "0")

GLOSSARY OF DEFINITIONS — QUESTION 3-h) AND 5-c)

TYPES OF QUALIFYING OR UPGRADING FORMAL TRAINING PROGRAMS

1. **Managerial/Supervisory** — programs designed to either qualify or upgrade skills required to direct the activities of a section or department (planning, organizing and contracting) including the supervision (either personally or through subordinates) of a staff.
2. **Professional** — programs designed to either qualify or upgrade a worker's theoretical or practical knowledge of a specific field or discipline such as art, science, engineering, education, medicine, law, business relations, and administrative, managerial and technical work.
3. **Technical** — programs designed to either qualify or upgrade skills of workers in direct support of Engineers or Scientists. Such skills are primarily related to research, development, design, testing and analysis, installation, operation and maintenance, quality control, production planning and testing and analysis.
4. **Sales** — programs designed to either qualify or upgrade skills related to selling commodities or services. Management training is excluded from this definition.
5. **Apprenticeship** — is a formalized program that leads to journeyman status. It involves a written contract agreement between employer and employee regardless of whether or not the apprentice is registered with the Industrial Training Branch of the Ministry of Education and Colleges and Universities.
6. **Non-Apprentice Trade and Manual** — programs designed to either qualify or upgrade skills related to production (processing, assembly, machining, maintenance, repair, etc.); construction trades; transport equipment operation and materials handling.
7. **Office/Clerical** — programs designed to either qualify or upgrade clerical and related skills such as stenographic, word processing, bookkeeping, office machine and data processing equipment operators, material recording and scheduling, library, file and correspondence.

**THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE.
DO YOU WISH TO RECEIVE A COPY OF THE RESULTS OF THIS STUDY?**

YES 68-1 NO 2

(IF YES)

NAME: _____

TITLE: _____

ADDRESS (if different from that listed on front page)

